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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/783,502	02/20/2004	Kevin B. Kline	7638 - 64985	7588
35973 7590 08/11/2008 BINGHAM MCHALE LLP 2700 MARKET TOWER 10 WEST MARKET STREET INDIANAPOLIS, IN 46204-4900				
EXAMINER NORMAN, MARC E				
ART UNIT 3744		PAPER NUMBER		
NOTIFICATION DATE 08/11/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ptodocket@binghammchale.com  
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pbailey@binghammchale.com

# Office Action Summary

**Application No.**

10/783,502

**Applicant(s)**

KLINE, KEVIN B.

**Examiner**

Dr. Marc E. Norman

**Art Unit**

3744

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-59 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-59 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-21, drawn to a valve member in a cavity movable in response to movement of the thermostatic assembly between a first position permitting flow of at least one of the hot and cold fluids and a second position restricting a majority of flow of hot fluid through the valve member.
- II. Claims 22-29, drawn to a valve member disposed at least partially in the liner and movable between a first position to block the flow of fluid through the hot liner inlet and a second position engaging the downstream valve seat to restrict flow of fluid from the hot and cold liner inlets, the valve member including a downstream section formed to include a weep opening to permit restricted flow of at least the relatively hotter fluid therethrough when the valve member is in the second position.
- III. Claims 30-38, drawn to a valve member movable in the cavity between a first position permitting flow of at least one of the hot and cold fluids and a second position restricting a majority of flow of hot fluid through the valve member, the valve member including a plurality of spaced-apart mixing fins configured to encourage mixing by creating turbulence in fluid flowing past the mixing fins.
- IV. Claims 39-45, drawn to a valve member in the valve body movable in response to movement of the thermostat assembly between a first position engaging the first

seat when the thermostat senses a first mixed fluid temperature, and a second position engaging the second seat, in the first position the valve member blocking the hot fluid inlet, the valve member moving to the second position in response to failure of the thermostat, and the valve member moving to a third position between the first and second seats when a second mixed fluid temperature lower than the first mixed fluid temperature is sensed by the thermostat, wherein the valve member blocks the cold inlet.

- V. Claims 46-49, drawn to a valve member movable along a central axis in the cavity between a position restricting flow from at least one of the fluid inlets and a position permitting flow through both of the inlets, the valve member including a central region and a plurality of spaced apart mixing fins each extending from the central region and including a surface that is non-parallel to the axis to facilitate mixing of the first and second fluids.
- VI. Claims 50-54, drawn to a piston in the cavity and movable along the axis, the piston including a piston bore extending longitudinally therethrough and having a first piston end, a second piston end, a middle region between the ends, an engagement surface at the first piston end bordering the piston bore and engaging the first seat to block flow of the first fluid through the piston bore, a failure shutoff surface at the second piston end movable to engage the second valve seat, the first fluid entering the piston bore between the first valve seat and the engagement surface, the piston formed to include a slot therein positioned axially

closer to the engagement surface than to the failure shutoff surface to facilitate mixing of the first and second fluids.

- VII. Claims 55-59, drawn to a plurality of spaced apart fins extending from the main body region, at least a portion of the fins configured to lie non-parallel to the direction of flow of at least one fluid through the valve.

The inventions are distinct, each from the other because of the following reasons:

Inventions I-VII are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, each of subcombinations I-VII has separate utility such as in a mixing valve that does not include the details of each of the other subcombinations as presented above. See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Restriction for examination purposes as indicated is proper because all these inventions listed in this action are independent or distinct for the reasons given above and there would be a

serious search and examination burden if restriction were not required because one or more of the following reasons apply:

- (a) the inventions have acquired a separate status in the art in view of their different classification;
- (b) the inventions have acquired a separate status in the art due to their recognized divergent subject matter;
- (c) the inventions require a different field of search (for example, searching different classes/subclasses or electronic resources, or employing different search queries);
- (d) the prior art applicable to one invention would not likely be applicable to another invention;
- (e) the inventions are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

**Applicant is advised that the reply to this requirement to be complete must include (i) an election of a invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.**

The election of an invention may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse. Traversal must be presented at the time of election in order to be considered timely. Failure to timely traverse the requirement will result in the loss of right to petition under 37 CFR 1.144. If claims are added after the election, applicant must indicate which of these claims are readable on the elected invention.

If claims are added after the election, applicant must indicate which of these claims are readable upon the elected invention.

Should applicant traverse on the ground that the inventions are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Marc E. Norman whose telephone number is 571-272-4812. The examiner can normally be reached on Mon.-Fri., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler can be reached on 571-272-4834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 3744

MN

/Dr. Marc E. Norman/

Primary Examiner, Art Unit 3744